

1 24242-66 EWT(m) DIAAP
ACC NR: AP6014616

SOURCE CODE: UR/02

AUTHOR: Krizhanskiy, L. M.; Rogozev, B. I.; Popov, G. V.

ORG: none

TITLE: On the sign of the change of the charge radius of the Sn^{119} nucleus
SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 9, 1966, 382-384

TOPIC TAGS: Mossbauer effect, line shift, excited state, resonance line, barium titanate, tin, solid solution, paraelectricity, ferroelectricity

ABSTRACT: The authors used the nuclear-gamma-resonance spectroscopy method to investigate the behavior of $Ba(Ti, Fe)O_3$ solid solutions in the region of transition from the paraelectric dependence of the chemical shift in the absorption spectra of such solid solution in the transition region, and from a comparison with similar data for $Ba(Ti, Fe)O_3$ they have also determined the sign of the change in the charge radius of Sn^{119} . The investigation was made with the apparatus described in a paper by one of the authors (Krizhanskiy, with Ye. M. Kruglov, ZhETF v. 43, 2050, 1962). The source was tin dioxide. A plot of the temperature dependence of the chemical shift in the spectra of $Ba(Ti_{0.8}, Sn_{0.2})O_3$ and $Ba(Ti_{0.7}, Sn_{0.3})O_3$ shows that at temperatures above -60C and -150C the corresponding solid solutions are in the paraelectric phase

Card 1/2

Card 2/2

MIKHEYEV, G.F., kand.tekhn.nauk; ROGOZHAN, A.N., inzh.

Metal level control in conveyer-type equipment for the
continuous pouring of steel. Stal' 22 no.2:126 F '62.
(MIRA 15:2)

1. Institut ekonomiki AN SSSR.
(Continuous casting—Equipment and supplies)
(Liquid level indicators)

SABLIN, A., inzh.; ROGOZHNIKIN, A., inzh.

Obsolete instruction. Nauka i pered. op. v sel'khoz 9 no.10:
69 0 '59 (MIRA 13:3)

1. Stalingradskaya proyektno-isyskatel'skaya kontora.
(Electricity in agriculture)

DUKHANIN, Yu., inzh.; ROGOZHIN, A., inzh.

In the front ranks. Okhr.truda i sots.strakh. no.7:32-33
Jl '59. (MIRA 12:11)
(Lipetsk--Tractor industry--Safety measures)

SKRYABIN, K.I., akademik; LAROV, A.I., prof.; ROGUCHENIN A.G.,
red.

[Principles of veterinary nematodology] Osnovy veterinar-
noi nematodologii. Moskva, Izd-vo "Kolos," 1964. 522 p.
(MIRA 17:8)

ROGOZHIN, G. [Rohozhyn, H.], arkhitekt

Buildings serving cultural and public needs to be constructed on
central plots of collective farms. Sil'.bud. 9 no.7:12-14
J1 '59. (MIRA 12:9)

(Ukraine--Public buildings)

ROGOZHEV, Nikolay Alekseyevich

N/5
741.75
.R7

ROGOZHEV, Nikolay Alekseyevich

Tekhnologiya i oborudovaniye proizvodstva elektroizmeritel'nykh priborov
(Technology and equipment for the production of electrical measuring instru-
ments) Moskva, Gosenergoizdat, 1956.

271 p. diagrs., tables.

Bibliography: p. 272.

ROGOZHEV, Nikolay Alekseyevich; VOSTROKNUTOV, N.G., redaktor; FIDKIN, A.M.,
tekhnicheskly redaktor.

[Technology and equipment for manufacturing electric measuring
instruments] Tekhnologiya i oborudovanie proizvodstva elektroizme-
ritel'nykh priborov. Moskva, Gos. energ. izd-vo. 1956. 271 p.
(Electric instruments) (MLRA 9:5)

VOROPAYEV, I.G.; ROGOZHEVA, M.F.

Mechanized harvesting of pulse crops. Zemledelie 4 no.7:107-108
Jl '56. (MLRA 9:9)
(Tambov Province--Legumes) (Harvesting machinery)

LAY, Ya.; BARTENEV, F., agronom; ROGOZHNIKIN, A., inzh.

For general use of electric equipment. Nauka i pered. op v
sel'khoz 9 no.5:1-5 My '59. (MIRA 12:8)

1. Predsedatel' kolkhoza im. Stalina, Bykovskogo rayona, Stalingrad-
skoy oblasti (for Lay)
(Electricity in agriculture)

KURASOVA, V.V.; KVASHNINA, Ye.S.; KADYROV, N.T.; IBRAGIMOV, R.P.;
MOREV, V.I.; ROGOZHNIK, A.I.; SIROTENKO, M.

Information. Veterinariia 38 no.11:92-96 N '61. (MIRA 18:1)

ROGOZHIN, Anatoliy Ivanovich, polkovnik.

From the President of the Association. Nashi vesti no.63:1-2
S '54. (MIRA 7:9)

(Refugees--Political activities) (Political activities--
Refugees)

SHESTOPALOV, Konstantin Sergeyevich,; ROGOZHIN, Aleksey Ivanovich,;
MOROZOV, Nikolay Dmitriyevich; MARTENS, S.L.,red.; ZUYEVA, N.K.,tekhn.red.

[Use and repair of automobiles] Eksploatatsiia i remont avtomobilei.
Moskva, Nauchno-tekhn. izd-vo avtotransp. lit-ry. 1958. 319 p.
(MIRA 11:12)

(Automobiles)

ROGOZHIN, A.I., polkovnik.

From the president of the Association. Nashi vesti no.64:7-8 0 '54.

(MLRA 7:10)

(Richmond, Maine--Churches) (Churches--Richmond, Maine)

ROGOZHIN, A.N.

Reconditioning flanges of crane wheels. Mashinostroitel' no.1:17
Ja '60. (MIRA 13:4)

(Cranes, derricks, etc.--Maintenance and repair)

ZAKHARCHENKO, D.D., dotsent, kandidat tekhnicheskikh nauk; ISAYEV, I.P., dotsent, kandidat tekhnicheskikh nauk; KALININ, V.K., inzhener; KREST'YANOV, M.Ye., dotsent, kandidat tekhnicheskikh nauk; LAKSHTOVSKIY, I.A., dotsent, kandidat tekhnicheskikh nauk; MARKVARDT, K.G., professor, doktor tekhnicheskikh nauk; MEDEL', V.B., professor, doktor tekhnicheskikh nauk; MIRONOV, K.A., inzhener; MIKHAYLOV, N.M., dotsent, kandidat tekhnicheskikh nauk; MAKHODKIN, M.D., dotsent, kandidat tekhnicheskikh nauk; OZEMBLOVSKIY, Ch.S., inzhener; OSIPOV, S.I., inzhener; ROMASHKOV, S.G., inzhener; SOKOLOV, L.S., inzhener; FAMINSKIY, G.V., kandidat tekhnicheskikh nauk; SHATSILLO, A.A., inzhener; SHLYAKHTO, P.N., dotsent, kandidat tekhnicheskikh nauk; BOVE, Ye.G., kandidat tekhnicheskikh nauk, retsenzent; PERTSOVSKIY, L.M., inzhener, retsenzent; ALEKSEYEV, A.Ye., professor, doktor tekhnicheskikh nauk, retsenzent; BATALOV, N.M., inzhener, retsenzent; VINBERG, B.N., inzhener, retsenzent; GRACHEVA, L.O., kandidat tekhnicheskikh nauk, retsenzent; YEVDOKIMOV, A.M., inzhener, retsenzent; KALININ, S.S., inzhener, retsenzent; TRAKHTMAN, L.M., kandidat tekhnicheskikh nauk, retsenzent; PYLENKOV, A.P., inzhener, retsenzent; GOKHSHTIN, B.Ya., kandidat tekhnicheskikh nauk, retsenzent; IL'IN, I.P., inzhener, retsenzent; MAKHODKIN, M.D., dotsent, kandidat tekhnicheskikh nauk, retsenzent; TISHCHENKO, A.I., otvetstvennyy redaktor; BENESHEVICH, I.I., kandidat tekhnicheskikh nauk, redaktor; ZOROKHOVICH, A.Ye., dotsent kandidat tekhnicheskikh nauk, redaktor; LUTSENKO, Ye.G., inzhener, redaktor; BOGOZHIN, A.P., inzhener, redaktor; SIDOROV, N.I., inzhener, redaktor; VERINA, G.P., tekhnicheskiiy redaktor
(Continued on next card)

ZAKHARCHENKO, D.D.---(continued) Card 2.

[Technical manual for railroad workers] Tekhnicheskii
spravochnik zheleznodorozhnika. Red. kollegiia R.G. Granovskii
i dr. Moskva, Gos. transp. zhel-dor. izd-vo. Vol. 9.[Electric
railroad rolling stock] Elektropodvizhnoi sostav zheleznykh
dorog. Otv. red. toma A.I. Tishchenko. 1957. 652 p. (MLRA 10:4)

1. Chlen-korrespondent Akademii nauk SSSR. (for Alekseyev)
(Electric railroads--Rolling stock)

~~ROGOZHIN~~ A.P.; DEMCHENKO, V.G.; SHIBAYEV, B.N.; KORNIYENKO, Yu.A.; SHUSTOV,
V.A.; BRODOVSKIY, S.S.; KALASHNIKOV, I.V.

Increasing the control of brake relays to 540 a on type G cars of
the subway. Prom. energ. 12 no.7:22 JI '57. (MLRA 10:8)
(Electric railroads--Drakes)

107-57-3-32/64

AUTHOR: Rogozhin, B. (Kuybyshev)

TITLE: Mounting Electrolytic Capacitors. Experience exchange
(Krepleniye elektroliticheskikh kondensatorov. Obmen opytom)

PERIODICAL: Radio, 1957, Nr 3, p 31 (USSR)

ABSTRACT: As Soviet electrolytic capacitors have no contact prongs, cutting a round hole in the chassis with two keyway-type slits is suggested. Two foil-wrapped rubber wedges are inserted in the slits and keep the capacitor tightly in place.

There is one figure in the article.

Card 1/1

ROGOZHIN, B. (Kuybyshev)

Fastening electrolytic capacitors. Radio no.3:31 Mr '57.
(MLRA 10:5)

(Condensers (Electricity))

SOV/124-57-5-5506

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 5, p 56 (USSR)

AUTHOR: Rogozhin, B. S.

TITLE: Sufficient Conditions for the Single-valuedness of the Solutions of Reverse Boundary Problems in Hydrodynamics (Dostatochnyye usloviya odnolistnosti resheniya obratnykh krayevykh zadach gidromekhaniki)

PERIODICAL: Tr. 3-go Vses. matem. s"yezda. Vol I, Moscow, AN SSSR, 1956, pp 210-211

ABSTRACT: Bibliographic entry

Card 1/1

ROGOZHIN, D.I.

Hydrogeology of Lower Cretaceous sediments in the northwestern
Caucasus (Laba-Psekups interfluve). Trudy KF VNII no.10:221-229
'62. (MIRA 15:11)

(Laba Valley--Oil field brines)
(Psekups Valley--Oil field brines)

CHUVATOV, V.V.; BEREZIN, N.N.; METSGER, E.Kh.; NAGIN, V.A.; KARTASHOV, N.A., kand. tekhn. nauk, dots.; MIL'KOV, N.V., kand. tekhn. nauk; BYCHKOV, M.I., kand. tekhn.nauk, dots.; SUKHANOV, V.P., SHLYAPIN, V.A.; KORZHENKO, L.I.; ABRAMYCHEV, Ye.P.; KAZANTSEV, I.I.; YARES'KO, V.F.; LUKOYANOV, Yu.N.; DUDAROV, V.K.; BALINSKIY, R.P.; KOROTKOVSKIY, A.E.; PONOMAREV, I.I.; NOVOSEL'SKIY, S.A., kand. tekhn.nauk, dots.; IL'INYKH, N.Z.; TSITKIN, N.A.; ROGOZHIN, G.I.; PRAVOTOROV, B.A.; ORLOV, V.D.; RACHINSKIY, M.N.; KULTYSHEV, V.N.; SMAGIN, G.N.; KUZNETSOV, V.D.; MACHERET, I.G.; SHEGAL, A.V.; GALASHOV, F.K.; ANTIPIN, A.A.; SHALAKHIN, K.S.; RASCHUKTAYEV, I.M.; TISHCHENKO, Ye.I.; FOTIYEV, A.F.; IPPOLITOV, M.F.; DOROSINSKIY, G.P.; ROZHKOV, Ye.P.; RYUMIN, N.T.; AYZENBERG, S.L.; GOLUBTSOV, N.I.; VUS-VONSOVICH, I.K., inzh., retsenzent; GOLOVKIN, A.M., inzh., retsenzent; GUSELETOV, A.I., inzh., retsenzent; KALUGIN, N.I., inzh., retsenzent; KRAMINSKIY, I.S., inzh., retsenzent; MAYLE, O.Ya., inzh., retsenzent; OZERSKIY, S.M., inzh., retsenzent; SKOBLO, Ya.A., dots., retsenzent; SPERANSKIY, B.A., kand. tekhn. nauk, retsenzent; SHALAMOV, K.Ye., inzh., retsenzent; VOYNICH, N.F., inzh., red.; GETLING, Yu., red.; CHERNIKHOV, Ya., tekhn. red.

[Construction handbook] Spravochnik stroitelia. Red.kollegiia: M.I. Bychkov i dr. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo. Vol.1. 1962. 532 p. Vol.2. 1963. 462 p. (MIRA 16:5)
(Construction industry)

TSUKERMAN, I.E.; MILONOV, N.P.; ROGOZHIN, G.V.; BORDA, A.V.

Prospects for the use of supports made of new materials in the
Kizel Basin. Nauch. trudy PermNII no.6:103-114 '64.

(MIRA 18:2)

ROGOZHIN, H.

ROGOZHIN, H. Novye raiony khlopkovodstva. [Ukraina, Krym. Sev. Kavkaz, Dagestan, Nizh. Povolzh'e/. Moskva, Sotsekgiz, 1931. 98 p. (Nauchno-issledovatel'skii institut po khlopkovodstvu i khlopkovoi promyshlennosti novykh raionov.)

DLC: SB251.R9R6

SO: LC, Soviet Geography, Part I, 1951, Uncl.

ROGOZHIN, K.

Designers make efforts to create new machinery and lines. Mias.
ind. SSSR 26 no.4:26 '55. (MIRA 8:10)

1. Tsentral'noye konstruktorskoye byuro Glavmashomolmasha
(Packing houses--Equipment and supplies)

ANISIMOV, G.T.; ROGOZHIN, Kh.S.; SHIBIN, N.S.; BAULIN, V.A., redaktor;
MEDRISH, D.M., tekhnicheskiy redaktor

[Safety measures in public eating establishments; a practical
manual] Tekhnika bezopasnosti v predpriyatiyakh obshchestvennogo
pitaniya; prakticheskoe posobie. Moskva, Gos. izd-vo torgovoi
lit-ry, 1956. 131 p. (MLRA 10:2)
(Restaurants, lunchrooms, etc. - Safety measures)

ROGOZHIN, N.

Our friendship is inviolable. Grazhd.av. 18 no.10:30 0 '61.
(MIRA 15:5)
(International cooperation)

ROGOZHIN, N.; GRINGAUZ, A.

Valuable advice, effective suggestions. Grazhd. av. 17 no.8:23-24
Ag '60. (MIRA 13:9)

(Aeronautics, Commercial--Freight)

ROGOZHIN, N.

New cotton growing regions Moskva, Gos. izd-vo selkhoz. i kolkhozno-kooperativnoi lit-ry.
1931. 139 p.

Yudin SB251.R8R6

ROGOZHIN, N.

Ukraina, Krym, Sev. Kavkaz, Dagestan, Nizh. Povolzh'e New cotton growing regions Moskva,
Gos. sots.-ekon. izd-vo, 1931. 98 p. (49-40937)

SB251.R9R6

ROGOZHIN, N.

Aviation helps in poultry breeding. Kryl.rod. 2 no.10:
23 0 '51. (MLRA 8:8)

(Aeronautics in agriculture)

ROGOZHIN, N. (g. Aleksandrovsak-Sakhalinskiy)

Ivan Naumenko. Grazhd. av. 12 no. 5:8 My '55. (MIRA 8:9)
(Naumenko, Ivan Afanas'evich)

ROGOZHIN, N.

ROGOZHIN, N. Nove raiony khlopkovodstva. (Ukraina, Krym, Sev. Kavkaz, Dagestan, Nizh. Povolzh'e). Moskva, Sotsekgiz, 1931. 98 p. (Nauchno-issledovatel'skii institut po khlopkovodstvu i khlopkovoï promyshlennosti novykh raionov.)
DLC: SB251.R9R6

SO: LC, Soviet Geography, Part I, 1951, Uncl.

ROGOZHIN, N.

ROGOZHIN, N. Novye raiony khlopkovodstva. [Ukraina]. Moskva, Sotsekizdat, 1931.
93 p. (Nauchno-issledov. institut po khlopkovodstvu i khlopkovoi promyshlennosti
novykh raionov.).

DLC: SE251.R9R6

So: LC, Soviet Geography, Part II, 1951/Unclassified

ROGOZIN, G.D.

New method for making screw rings. Mashinostroitel' no.5:22 My
'60. (MIRA 14:5)

(Metalwork)

ROGOZIN, N.; MALYSHEV, A.

Reclamation of Polesye. Geog.v shkole no.2:15-20 Mr-Ap '54.

(MLRA 7:2)

(Polesye--Reclamation of land) (Reclamation of land--Polesye)

1. 1. 1.

BOGOMIEN, N. Novye raiony Khlopkovodstva. [Ukraina, Arty, Sov. Kavkaz, Dagest an, Kish. Lovolsh'e]. Moskva, Sotsekhizdat, 1931. 98 p. (Nauchno-issledovatel'skii institut po khlopkovodstvu i khlopkovoi promyshlennosti novykh raionov.)

DLJ: SB251.2936

SO: LC, Soviet Geography, Part II, 1931, Unclassified

ROGOZHIN, N.

ROGOZHIN, N. Novye raiony khlopkovodstva. [Ukraina, Krym, Sev. Kavkaz, Dagestan, Mikh. Povolzh'e]. Moskva, Sotsekizdat, 1931. 98 p. (Nauchno-issledovatel'skii institut po khlopkovoi promyshlennosti novykh raionov.)

DLC: SB251, P936

SO: LC, Soviet Geography, Part II, 1951, Unclassified

ROGOZHIN, N.

ROGOZHIN, N.....Novye raiony khlopkovodstva. (Ukraina, Krym, Sev. Kavkaz, Dagestan, Nizhn. Povolzh'e). Moskva, Sotsekizdat, 1931. 98 p. (Nauchno-issledovatel'skii institut po khlopkovodstvu i khlopkovoi promyshlennosti novykh, raionov.)

DLC: SB251.R9R6

SO: LC, Soviet Geography, Part II, 1951/Unclassified

ANNANKOV, V.A., kand. tekhn. nauk; VAKULIN, V.S., inzh.; PLOCHENKO, I.G.;
RODZILIN, P.A.

Torsaded packing of a molding vulcanizer. Khim. i nefte. mashinostr.
no. 2:40 F '65. (MIRA 18:4)

28650

214200 also 1496

S/020/61/139/006/017/022
B103/B101

AUTHORS: Koton, M. M., Corresponding Member AS USSR, Andreyeva, I. V.,
Andreyev, P. F., and Rogozina, E. M.

TITLE: Complexes of polyacrolein with heavy-metal salts

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 139, no. 6, 1961, 1372-1374 X

TEXT: It is noted that samples of polyacrolein powder obtained under different conditions differ in their ability to form coordination complexes with heavy-metal salts. The strongest ability to cause such reactions has uranyl nitrate. In the pH range investigated salts of Pb, Co, Mn, Cu, Ni, and Fe are not able to form stable complexes with polyacrolein. Concerning the extraction of heavy-metal salts with organic compounds, the authors refer to papers by V. M. Vdovenko (Khimiya urana i transuranovykh elementov (Chemistry of uranium and transuranic elements) Izd. AN SSSR, 1960) and V. I. Kuznetsov (Usp. khim., 23, v. 6, 654 (1954)). The maximum quantity of uranium ($2305 \cdot 10^{-6}$ g/g) was extracted from aqueous solutions by means of polyacrolein samples obtained by polymerization of acrolein in

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Complexes of polyacrolein with heavy-... 28650
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B103/B101

aqueous solutions under the action of the redox system $K_2S_2O_8 + AgNO_3$, which is somewhat more effective than the system $K_2S_2O_8 + \text{Mohr's salt}$. Disacryl and polyacrolein obtained under the action of $K_2S_2O_8 + Na_2S_2O_3$ are less effective. The poorest extracting agents are samples of polymers obtained at low temperatures in the presence of boron trifluoride or by means of lithium butyl. The authors established a relationship between the content of aldehyde groups which are able to form oximes and the ability to extract uranium from aqueous solutions. Uranium can be extracted in the range of pH3 - pH4. Outside this range the percentage of extracted uranium drops quickly. The distribution coefficients for different samples of polyacrolein differ by a factor of ten (from 0.005025 to 0.04803). Uranium absorbed by polyacrolein can be quantitatively dissolved by dilute HCl. There are 2 figures, 2 tables, 4 Soviet and 6 non-Soviet references. The reference to English-language publications reads as follows: J. S. Anderson, Nature, 134, No. 165 (1950).

Cari 2/3

28650

S/020/61/139/006/017/022

Complexes of polyacrolein with heavy-... B103/B101

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk
SSSR (Institute of High-molecular Compounds, Academy of
Sciences USSR) ✓

SUBMITTED: April 8, 1961

Card 3/3

ROGOZIN, Igor' Stepanovich; KISELEVA, Zoya Timofeyevna

[Landslides in the Volga Valley portion of Ul'yanovsk and
Syzran'] Opolzni Ul'ianovskogo i Syzranskogo Povolzh'ia.
Moskva, Nauka, 1965. 157 p. (MIRA 18:4)

ROGOZIN, V.V.

Calculation of transmission factor and input conductance of
a cavity resonator containing a system of ferrite ellipsoids.

Radiotekh. i elektron. 9 no. 11:2044-2048 N '64.

(MIRA 17: 12)

REGUSHEV N. I.
CAPTION : Feeding of calves.

(-3)

ABST. JOUR. : Zvezd., No. 4, 1959, No. 16602

AUTHOR : Bogdanov, P. I.

INST. : All-Union Institute of Agriculture.

TITLE : The Feeding of Calves with Rations Containing a Large Quantity of Corn Silage.

ORIG. PUB. : Zh. Vsesoy. s.-kh. in-ta, 1957, v. 5, 293-299

ABSTRACT : The experimental group of heifers was raised with rations containing a large quantity of corn silage, to which an insignificant amount of concentrates was added, the control group was raised on a concentrate-type diet. By the age of 18 months the heifers of the experimental group were characterized by a better developed chest, were sturdier, had shorter legs, and were 17 kg heavier in terms of their live weight than the controls (340 kg).

CARD: 1/2

COUNTRY : USSR
CATEGORY : Farm Animals. Cattle. Q-3

ABJ. JOUR. : RZBiol., No. 4, 1959, No. 16682

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : as against 303 kg). Well developed animals
may be raised on a diet of a "voluminous"
type with a small expenditure in concentra-
tes. -- M. P. Domina

CARD: 2/2

ROGOZHIN, Nikolay Ivanovich; ISLANKINA, T.F., red.; ATROSHCHENKO, L.Ye.,
tekhn.red.

[Aviation in the national economy] *Aviatsiia v narodnom khoziaistve.*
Moskva, Izd-vo "Znanie," 1960. 31 p. (Vsesoiuznoe obshchestvo po
rasprostraneniu politicheskikh i nauchnykh znani. Ser.4, Nauka i
tekhnika, no.24). (MIRA 13:9)
(Aeronautics, Commercial)

ROGOZHIN, N.M., inzh.

Small traveling hoist. Avtom., telem. i svyaz' 3 no.2:25 F '59.
(MIRA 12:4)

(Moscow--Subways--Equipment and supplies)

ROGOZHIN, N.M., inzh.

Instruments for testing and adjusting the DSR-12 relay. Avtom.,
telem. i sviaz' 2 no. 8:17-18 Ag '58. (MIRA 11:8)
(Electric relays--Testing)

KIRICHENKO, Vasilii Stepanovich, inzh.; FEYGEL'SON, B.Yu., kand.tekhn.
nauk, retsenzent; SUDAKIN, Ya.A., red.inzh.; pri uchastii:
PORVATOV, N.A., inzh.; KRASAVIN, D.P., inzh.; KOROBEYNIKOV, M.M.,
inzh.; BOGOZHNIKIN, P.I., inzh.; YEVDOKIMOV, F.N., inzh.; STUPIN,
A.N., inzh.; ZVYAGIN, A.V., inzh.; SIROTIN, A.M., red.izd-va,
inzh., EL'KIND, V.D., tekhn.red.

[Water-cooled chill molds] Vodoohlazhdaemye kokili. Moskva, Gos.
nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1958. 95 p. (MIRA 11:12)
(Molding (Founding))

ROGOZHIN, S.

Review of M. A. Lavrent'ev and B. V. Shabat's book "Methods of
the theory of functions of complex variables." Usp.mat.nauk
15 no.5:236-239 S-0 '60. (MIRA 13,10)
(Functions of complex variables)
(Lavrent'ev, M.A.) (Shabat, B.V.)

BOGOMOLIN, S. V.

"Concerning the Causes of the Development of Chain Growth in the Polycondensation Reaction." Sub 17 Apr 51, Inst of Organic Chemistry, Acad Sci USSR.

Dissertations presental for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 430, 9 May 55

* *cond. Chemical Sci.*

ROGOZHIN, S. V.

USSR/Chemistry - Polyamide Fibers Sep/Oct 51

High-Molecular Compounds. Communication 38.
Polyamides From 4,4'-Diaminodiphenylethane and
Dicarboxylic Acids," V. V. Korshak, S. V. Rogo-
zhin, Inst of Org Chem, Acad Sci USSR

"Iz Ak Nauk SSSR, Otdel Khim Nauk" No 5,
pp 593-595

By polycondensation of 4,4'-diaminodiphenyl-
ethane with adipic acid and sebacic acid, prepd
difficulty sol products with high mp (over
300° C).

195T19

PA 195T19

KORSHAK, V.V.; ROGOZHIN, S.V.

Thermal stability of dicarbonic acids. Doklady Akad.nauk SSSR 76
no.4:539-542 1 Feb 51. (CML 20:5)

1. Presented 7 December 1950 by Academician A.N.Nesmeyanov.

Chemical Abst.
Vol. 48
Apr. 10, 1954
Organic Chemistry

3
Causes of retardation of chain growth in polyesterification.
V. V. Korshak and S. V. Rogozhin, *Khim. i Fiz. Khim. Vysokomol. Soedinenii*, 1953, 11-18. In polyesterification reactions the thermal stability of the starting materials is very important. The low stability of $(CO_2H)_2$ and $CH_2(CO_2H)_2$ is the main reason for the prevention of polyester formation from these acids and glycols. The presence of monocarboxylic acids and excess of substances with HO groups lead to formation of low-mol. wt. products. In the decompn. of higher dicarboxylic acids during polyesterification the cleavage of the terminal CO_2H groups is one of the main reasons for stoppage of chain growth. Esters of very high-mol. wt. can be prepd. only if thermal decompn. of the terminal groups is prevented. The decompn. (decarboxylation) temps. of acids are: $(CO_2H)_2$ 178°, $CH_2(CO_2H)_2$ 145°, $(CH_2CO_2H)_3$ 300°, glutaric acid 290°, adipic acid 315°, pimelic acid 300°, suberic acid 345°, azelaic acid 320°, sebacic acid 355°. In mixts. with glycols these temps. are considerably lowered. Thus $(CO_2H)_2$ in $(CH_2OH)_2$ loses 25% of its CO_2H content in 5 hrs. at 110°; adipic acid loses CO_2 noticeably in $(CH_2OH)_2$ even at 150°; in $O(CH_2CH_2OH)_2$ the acids are somewhat less prone to decarboxylation. The neutral esters are much more thermally stable than the free dicarboxylic acids. The higher dicarboxylic acids (3 or more C atoms) generally form polyesters of high mol. wt. with glycols, but CO_2 evolution still takes place; thus, $(CH_2CO_2H)_3$ in $(CH_2OH)_2$ loses 3 times as much CO_2 at 270° as it does at 240°. Polyesters prepd. at high temp. are low in terminal acid groups; polyethylene succinate at 280° lacks 68.2% of the expected CO_2H groups. Generally in the course of the reaction the av. mol. wt. reaches a max. with temp. increase then declines, with concurrent increase of CO_2 evolution; polyethylene succinate and adipate show this max. at 265°. The sebacic acid esters, despite their thermal stability and generally increasing mol. wt. with rise in reaction temp., do show gradual loss of CO_2 , especially above 270° (0.2% at 280° in the esterification with $(CH_2OH)_2$). G. M. K.

USSR/Chemistry - High Polymers,
Synthetic Fibers

May/Jun 52

"High Molecular Compounds, Part 45. The Role of Decarboxylation of Dicarboxylic Acids in the Process of Polycondensation," V.V. Korshak, S.V. Rogozhin, Inst of Org Chem, Acad Sci USSR

"Iz Ak Nauk, Otdel Khim Nauk" No 3, pp 531-539

A method was developed for the detn of the thermal stability and of the kinetics of decomn of org carboxylic acids. The temps of decarboxylation were detd for oxalic, malonic, succinic, glutaric,

220719

adipic, suberic, azelaic, and sebacic adic. Decarboxylic acids with an odd number of C atoms decompose at lower temps than those with an even number of C atoms. Their thermal stability grows with the transition from lower to higher members of the homologous series. Decarboxylation exerts an appreciable neg effect in their polycondensation with bifunctional substances. The order of reaction and energy of activation were detd.

220719

ROGOZHIN, S. V.

Chemistry

Works of Stalin prize winners in the field of chemistry in 1951. Khim. v. shkole No. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December ¹⁹⁵²~~1953~~, Uncl.

ROGOZHIN, S. V.
Cand. Chem. Sci.

"N. A. Preobrazhenskiy's Work in the Field of Alkaloids "

Khimiya V Shkole, No.4, 1952, pp 8-10

ROGOZHIN, S. V.

USSR/ Chemistry Decarboxylation

Card : 1/1

Authors : Korshak, V. V., and Rogozhin, S. V.

Title : From the field of high-molecular compounds. Part 61.- Decarboxylation of dicarboxylic acids during polycondensation.

Periodical : Izv. AN SSSR, Otd. Khim. Nauk. 3, 541 - 549, May - June 1954

Abstract : The effect of temperature on the process of polycondensation of ethylene glycol with oxalic, malonic, succinic, adipic and sebacic acids, was investigated. The process of decarboxylation in the presence of ethylene glycol, which in the case of oxalic and malonic acids forms no polyesters and in the case of succinic and adipic acids decreases the molecular weight of polyesters (with increase in temperature), is explained. Explanations are also given for the sharp reduction in the decarboxylation temperature and the formation of carbon dioxide which take place in the presence of glycol. Eight USSR references. Tables, graphs, drawing.

Institute : Acad. of Sc. USSR, The N. D. Zelinskiy Institute of Org. Chemistry

Submitted : March 25, 1953

KORSHAK, V.V.; ROGOZHIN, S.V.; VOLKOV, V.I.

Heterochain polyamides. Part 20: Preparation of polyamides by reaction between carbon suboxide and diamines. Vysokom. soed. 1 no.6:799-803 Je '59. (MIRA 12:10)

1. Institut elementoorganicheskikh soedineniy AN SSSR.
(Amides) (Carbon oxide) (Amines)

KORSHAK, V.V.; ROGOZHIN, S.V.; VOLKOV, V.I.

Heterochain polyesters. Part 20: Reaction of carbon suboxide with glycols and biphenols. Vysokom. soed. 1 no.6:804-808 Je '59.
(MIRA 12:10)

1. Institut elementoorganicheskikh soedineniy AN SSSR.
(Carbon oxide) (Glycol) (Phenol)

L 40971-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 JAJ/RM

ACCESSION NR: AP5006415

S/0062/65/000/001/0140/0145

AUTHOR: Korshak, V. V., Rogozhin, S. V., Chou, Jun-p'ei

TITLE: Preparation of polymeric products from cumene and diisopropylbenzene

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 1, 1965, 140-145

TOPIC TAGS: benzene, dehydrocondensation, polymer

ABSTRACT: Cumene and diisopropylbenzene polymers were prepared by the thermal polydehydrocondensation reaction. The effect of time and temperature of this polydehydrocondensation reaction on the yield and molecular weight of the polymer was investigated. Under the effect of increased temperature, the yield generally dropped, whereas with the prolongation of the reaction the yield increases. An explanation is also given of certain peculiarities of the polydehydrocondensation reaction. Orig. art. has: 10 figures, 5 tables, 2 formulas.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR
(Institute of Elementoorganic Compounds, Academy of Sciences SSSR)

Card 1/2

L 40971-65

ACCESSION NR: AP5006415

SUBMITTED: 19Feb63

NO REF SOV: 004

ENCL: 00

OTHER: 000

SUB CODE: GC, OC

llc
Card 2/2

UNANYAN, M.P.; KONDRAT'YEVA, G.V.; LOCHMELES, A.Ya.; ZAV'YALOV, S.I.;
ZEYFMAN, Yu.V.; GAMBARYAN, N.P.; MINASYAN, R.B.; KNUNYANTS, K.L.;
KOCHARYAN, S.T.; ROKHLIN, Ye.M.; KAVERZNEVA, Ye.D.; KORSBAK, V.V.;
ROGOZHIN, S.V.; DAVANKOV, V.A.; TSEYTLIN, G.M.; PAVLOV, A.I.;
ZAKHARKIN, L.I.; OKHLOBYSTIN, O.Yu.; SEMIN, G.K.; BABUSHKINA, T.A.;
BILIEVICH, K.A.

Letters to the editor. Izv. AN SSSR. Ser. khim. no.1:1909-1914
'65. (MIRA 18:1)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR
(for Unanyan, Kondrat'yeva, Lochmelis, Zav'yalov, Kaverzneva).
2. Institut elementoorganicheskikh soyedineniy AN SSSR (for
Zeyfman, Gambaryan, Minasyan, Knunyants, Kocharyan, Rokhlin,
Korsbak, Rogozhin, Davankov, Zakharkin, Okhlobystin, Semin,
Babushkina, Bilevich).

L 22742-66 EWP(j)/EWT(m)/ETC(f)/ENG(m)/T RM/DS/WW

ACC NO: AP6006356 (A) SOURCE CODE: UR/0413/66/000/002/0093/0094

AUTHOR: Korshak, V. V.; Rogozhin, S. V.; Davankov, V. A.

ORG: none

TITLE: Method of preparing an iodo- and bromomethylated copolymer.
Class 39, No. 178098 ¹⁵

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1966, 93-94

TOPIC TAGS: methylation, bromine, iodine, copolymer

ABSTRACT: This Author Certificate describes proposed methods for preparing the iodo- and bromomethylated copolymer of styrene with divinylbenzene, an intermediate product for synthesizing ion-exchange resins from the chloromethylation product of a copolymer. To obtain a higher yield of compounds containing highly active elements in subsequent reactions, the chloromethylation product is treated with solutions of iodides and bromides of alkali metals in organic solvents.

[LD]

UDC: 661.183.123:678.746.22-136.622

SUB CODE: 011/
Card 1/1 *SD*

SUBM DATE: 29Sep64

L 31881-66 EWT(m) IJP(c) RM/DS
ACC NR: AP6012533

SOURCE CODE: UR/0062/66/000/003/0544/0546

AUTHOR: Korshak, V. V.; Rogozhin, S. V.; Davankov, V. A.; Vyrbanov, S. G. 28

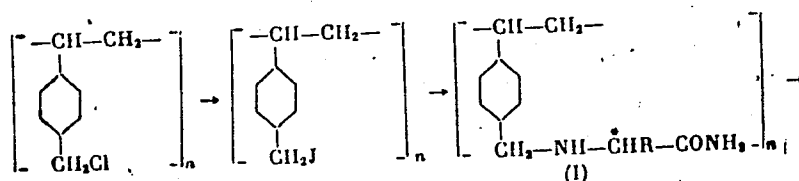
ORG: Institute of Elemental Organic Compounds, Academy of Sciences SSSR (Institut B
elementoorganicheskikh soedineniy Akademii nauk SSSR)

TITLE: Synthesis of optically active ionites 7

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 3, 1966, 544-546

TOPIC TAGS: ion exchange resin, amino acid, organic amide, hydrolysis

ABSTRACT: An attempt was made to use optically active α -amino acids and their deriva-
tives for synthesis of ionites according to the following scheme:

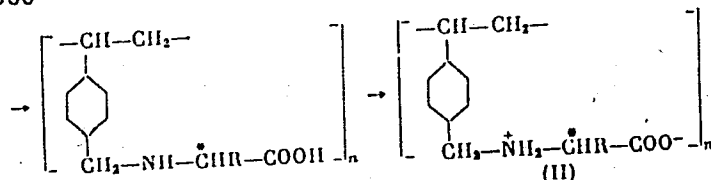


UDC: 542.91+535.56+661.183.123

Card 1/2

L 31881-66

ACC NR: AP6012533



It was shown that chloromethylated styrene-divinylbenzene copolymers do not react with α -amino acids and their derivatives under conditions which exclude racemization. The conditions for the reaction of iodomethylated styrene-divinylbenzene copolymer with α -amino acid amides were investigated and anionites on their base were obtained. The potentiometric titrations of ionite obtained on the basis of D,L-leucinamide showed that it is a weakly basic monofunctional anionite. Its swelling in water was very low. It swells much better in dioxane, acetone and especially well in methanol and ethanol. Its amide group can be easily hydrolyzed by boiling in 20% solution of HCl for 3-5 hrs. This produces amphoteric ionite. An optically active anionite was produced from styrene copolymer containing 2% of divinylbenzene with L-leucinamide. Its analytical capacity was 2.90 mg-equiv/g. Using this ionite separation of racemic D,L-mandelic acid was achieved. L(+) mandelic acid of a high degree of optical purity was thus obtained. Hydrolysis of amide groups produced amphoteric ionite. Orig. art. has: 2 figures, 2 tables.

SUB CODE: 07/

SUBM DATE: 08Jul65/

ORIG REF: 001/

OTH REF: 003

20
Card 2/2

L 45573-66 EWT(m)

SOURCE CODE: UR/0291/66/000/002/0031/0034

ACC NR: AP6027002

(A)

AUTHOR: Korshak, V. V.; Rogozhin, S. V.; Kayumov, R. D.

26
B

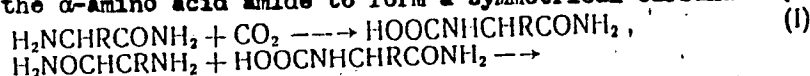
ORG: Institute of Organometallic Compounds, AN SSSR (Institut elementoorganicheskikh sovedineniy AN SSSR)

TITLE: Polycondensation of carbamates of α -amino acid amides

SOURCE: Uzbekskiy khimicheskiy zhurnal, no. 2, 1966, 31-34

TOPIC TAGS: polycondensation, carbamic acid, amide, amino acid

ABSTRACT: Carbamates of glycyl-, d, L-alanyl-d, L-valyl-d, L-leucyl- and d, L-nor-leucyl amide were synthesized, and their polycondensation in the melt was studied. It is thought that in the first stage of the reaction of carbon dioxide with the α -amino acid amides an N-carboxyamino acid amide (I) is formed which then reacts with another molecule of the α -amino acid amide to form a symmetrical carbamate (II):



Since the reaction is reversible, when the carbamate alone or its mixture with the α -amino acid amide is heated, substances of type (I) which may catalyze the transamidation reaction may appear in the reaction mixture. Furthermore, during the polycon-

Card 1/2

L 45573-36
ACC NR: AP6027002

0
densation of carbamates, a part of the amine groups may be present in the combined state; as a result, the concentration of free amine groups will be lower than that of the amide groups during the entire process. The polycondensation of α -amino acid amides and their carbamates shows that few cyclic dimers are formed from the carbamates, while the yield and average molecular weight of the polymeric products increase. The reaction stops relatively early (for both the carbamates and α -amino acid amides) because the melting points of the products are above their decomposition temperatures. It is shown that the polycondensation of carbamates of α -amino acid amides in the melt can produce polypeptides. Orig. art. has: 2 tables.

SUB CODE: 07/ SUBM DATE: 10Oct65/ ORIG REF: 001/ OTH REF: 007

Card 2/2 LC

L 11596-66 EWT(m)/ETC(F)/EWG(m) DS/RM

ACC NR: AP6000351

SOURCE CODE: UR/0286/65/000/021/0047/0047

44,55 44,55 44,55 46
AUTHORS: Korshak, V. V.; Rogozhin, S. V.; Davankov, V. A. B 6

ORG: none

11 44,55
TITLE: Method for obtaining optically active ion exchangers. Class 39, No. 176064

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 47

TOPIC TAGS: ion exchange resin, ion exchange, optic activity, amino acid, resin, copolymer, styrene

ABSTRACT: This Author Certificate presents a method for obtaining optically active ion-exchangers on the basis of halogen-methylated copolymers of styrene and divinylbenzene by aminating them with an aminating agent. To obtain an optically active and chelate-forming ion exchanger, bromomethylated copolymers of styrene and divinylbenzene are aminated by an optically active amino acid or its derivatives.

SUB CODE: 11/ SUBM DATE: 28Sep64

HW
Card 1/1

ENC: 661.183.123.3:678.746.22

KORSHAK, V.V.; ROGOZHIN, S.V.; DAVANKOV, V.A.; DAVIDOVICH, Yu.A.;
MAKAROVA, T.A.

Advances in the synthesis of polypeptides. Usp. Khim. 34 no.5:
777-849 My '65. (MIRA 18:7)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

KOCHAE, V.A.; BOGACHIN, S.V.; GIZOV ZHUK'-842 (1964 Jan-plai]

Preparation of polymeric products from cumene and diisopropylbenzene.
Izv. AN SSSR Ser. Khim. no.1:140-145 '65.

(HIRA 18:2)

1. Institut elementoorganichesk kh sovedipeniy AN SSSR.

KORCHAK, V.V.; KOGOVHIN, S.V.; SIDOROV, T.A.; CHENGU CHUNG-DEY [Chou Jun-p'ei];
KOMAROVA, L.I.

Preparation of polymeric products from p-xylene, pseudocumene,
and ditolylethane. Izv. AN SSSR Ser. khim. no.1:146-154 '65.
(MIRA 18:2)

1. Institut elementoorganicheskikh soedineniy AN SSSR.

ACCESSION NR: AP4019013

S/0062/64/000/002/0357/0361

AUTHOR: Korshak, V. V.; Rogozhin, S. V.; Chou, Jun-P'ei

TITLE: Preparation of polymer products from p-cymene

SOURCE: AN SSSR. Izv. Seriya khimicheskaya, no. 2, 1964, 357-361

TOPIC TAGS: paracymene polymer, immersed wire polymerization, polymer, cymene, hydrocarbon pyrolysis, polystyrene

ABSTRACT: The purpose of this study was to find the mechanics of p-cymene polymerization by electrically heating a wire immersed in it to 700C. This method, unlike the usual pyrolysis of hydrocarbons in gaseous form permits the reaction of radicals formed on the hot wire to recombine with the mother substance and the gaseous products of the reaction. As a result, the polymers so formed are incorporated with the liquid at their boiling temperature and are not subjected to the destructive high temperatures of pyrolysis. The polymer yield is 40% of the initial material, with a molecular weight of 2000 to 5000 and an identical elementary composition and, probably structure, rather than a mixture of different polymers. The physical properties of the polymer are analogous to

Card 1/2

ACCESSION NR: AP4019013

those of polystyrene and its alkyl derivatives. The influence of time and temperature of p-cymene hydrocondensation on the yield and molecular weight of the polymer are described. The polyhydrocondensation itself is discussed. Refining was done by dissolution in benzene and precipitation by methanol (twice). Oligomers were separated from the benzene solution by subsequent distillation. Orig. art. has: 6 figures, 1 formula, 3 tables.

ASSOCIATION: Institut elementoorganicheskikh sovedineniy Akademii nauk SSSR
(Institute of Elementoorganic Compounds, Academy of Sciences, SSSR)

SUBMITTED: 10Sep62

DATE ACQ: 27Mar64

ENCL: 00

SUB CODE: OC

NO REF SOV: 003

OTHER: 000

Card 2/2

KORSHAK, V.V.; ROGOZHIN, S.V.; SIDOROV, T.A.; CHZHOU ZHUN'PEY; KOMAROVA, L.I.

Synthesis and structure of polymeric compounds from saturated
alkyl aromatic compounds. Izv.AN SSSR Otd.khim.nauk no.5:
912-921 My '63. (MIRA 16:8)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Polymers) (Aromatic compounds)

S/0062/63/000/005/0912/0921

ACCESSION NR: AP3000128

AUTHOR: Korshak, V. V.; Rogozhin, S. V.; Sidorov, T. A.; Chou Jun-P'ei; Komarova, L. I.

TITLE: Synthesis and the structure of polymeric compounds from saturated aromatic alkyl compounds

SOURCE: AN SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 5, 1963, 912-921

TOPIC TAGS: aromatic alkyl polymer preparation, ethylbenzene, cumol, p-cymol intermediates, di-isopropylbenzene intermediates

ABSTRACT: A useful and practical laboratory method has been developed for the preparation of alkylaromatic compounds by means of pyrolysis. The apparatus is constructed in such a way that the reaction can be controlled and the reaction results can be reproduced (see Figure 1, Enclosure 1). The maximum yield of polymeric products is reached when the temperature of a platinum wire traversing the length of the apparatus is heated to 750-800C at a constant time. Meanwhile, the quantity of gaseous products and oligomers sharply increase with the increase of temperature. At optimum conditions, the polymer yield is 40% of the total. The obtained polymers are hard colorless compounds which soften at a temperature of

Card 1/3

ACCESSION NR: AP3000128

50-90C, which are easily soluble in original starting materials, and which have molecular weights ranging from 2000 to 6000. The intermediates used for the synthesis of these polymeric compounds were ethylbenzene, cumol, p-cymol, and di-isopropylbenzene. Their structures were confirmed by infrared spectroscopy. An explanation is given to some reaction features of polydihydrocondensation. Orig. art. has: 2 tables, 4 graphs, 1 fig. and some structural forms.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR
(Institute of Organometallic Compounds, Academy of Sciences SSSR)

SUBMITTED: 29Jun62

DATE ACQ: 12Jun63

ENCL: 01

SUB CODE: CH

NO REF SOV: 004

OTHER: 008

Card 2/3

ACCESSION NR: AP3000128

ENCLOSURE: 1

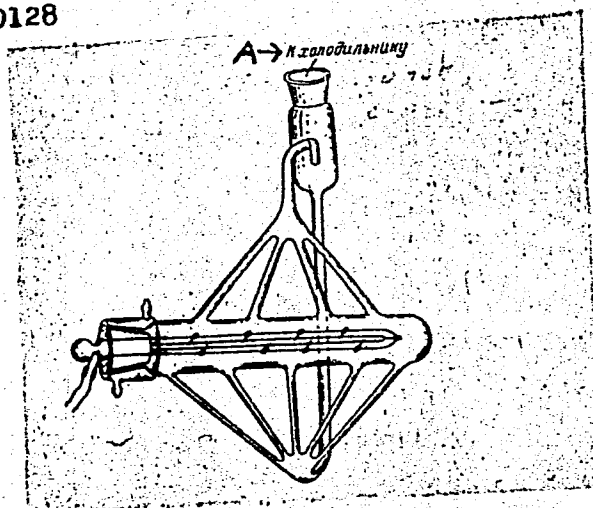


Fig. 1. Apparatus for the preparation of polymers by polyhydro-
condensation.
A - to condenser

Card 3/3

KORSHAK, V.V.; ROGOZHIN, S.V.; MAKAROVA, T.A.

Coordination polymers. Part 15: Interaction of organotin compounds with dicarboxylic acids and their derivatives.
Vysokom.sped. 4 no.9:1297-1302 S '62. (MIRA 15:11)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Tin organic compounds)
(Acids, Organic)

KORSHAK, V.V.; ROGOZHIN, S.V.; VOLKOV, V.I.

Coordination polymers. Part 8: Polymers based on aromatic
o,o'-dihydroxydicarboxylic acids and bivalent metals. Vysokom
soed. 3 no.12:1808-1815 D '61. (MIRA 15:3)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Polymers) (Acids, Organic)

KORSHAK, V.V.; ROGOZHIN, S.V.; VINOGRADOV, M.G.

Phthalocyanine polymers of diphtalyl ketone. Izv.AN SSSR.Otd.khim.
nauk no.8:1473-1475 Ag '62. (MIRA 15:8)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Ketone) (Phthalocyanine)

KORSHAK, V.V.; SLADKOV, A.M.; KRONGAUZ, Ye.S.; ROGOZHIN, S.V.;
RODIONOVA, Ye.P.; CHELNOKOVA, G.N.; MAKAROVA, T.A.; SOSIN, S.L.;
LOSKUTOVA, L.P., redizd vo; POLYAKOVA, T.V., tekhn.red.

[Theory and technology of synthetic macromolecular compounds.
Gibbonyuia soedineniia. Polimerizatsiia i sinteticheskikh
vysokomolekulyarnykh soedinenii. Khimicheskaya soedineniia,
Moskva, izdatel'stvo AN SSSR, 1961. 350 p., 110 g. 100 k.
Khimicheskie nauki, no. 6] (MIRA 14s11)

1. Chlen-korrespondent AN SSSR (for Korshak).
(Macromolecular compounds)
(Cyclic compounds)

39843
S/190/62/004/008/001/016
B117/B144

5.3832

AUTHORS: Korshak, V. V., Rogozhin, S. V., Makarova, T. A.

TITLE: Investigation into coordination polymers. XIV. Reaction of phenyl thallium diisobutyrate with dicarboxylic acids and their derivatives

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 8, 1962, 1137 - 1141

TEXT: The reaction of phenyl thallium diisobutyrate with adipic, azelaic, and sebacic acids in ethyl alcohol at 40°C yielded white powdery polymers. When compounds insoluble in aliphatic solvents were dissolved in aromatic solvents, acetic acid and in dimethyl formamide they yielded solutions of low viscosity ($\sim 0.04 - 0.08$). This is attributed to the spherical shape of the macromolecules or to cleavage of their chains in solution. It was found that the reaction of phenyl thallium diisobutyrate with dicarboxylic acids (with or without solvents) at temperatures of 150 - 155°C not only yielded polymers but caused decomposition of phenyl thallium diisobutyrate. The carbon content was considerably reduced by separation of phenyl

Card 1/2

Investigation into coordination...

S/190/62/004/008/001/016
B117/B144

groups, causing discoloration (brown) and reducing the polymer solubility. The melting points of the polymers lay between 140 and 250°C, depending on the conditions of synthesis. Polymers containing thallium were obtained from α, α' -dihydroxy and α, α' -dimethoxy sebacic acids, owing to the weak bond between acyl groups and thallium. Besides pure ion bonds the polymers form coordination bonds with metal ions. The solubility of these polymers in organic solvents is limited. Thus it was shown that the dissolution of polymers containing metals is inhibited or reduced by the introduction of hydroxy and methoxy groups, respectively, into the α -position to the carboxylic group. There are 3 tables. X

ASSOCIATION: Institut elementoorganicheskikh soedineniy AN SSSR
(Institute of Elemental Organic Compounds AS USSR)

SUBMITTED: April 10, 1961

Card 2/2

32343
S/190/62/004/001/004/020
B101/B110

158150
AUTHORS:

Korshak, V. V., Rogozhin, S. V., Volkov, V. I.

TITLE:

Studies of coordination polymers. IX. Metal-containing polymers based on aliphatic dicarboxylic, α , α' -dihydroxydicarboxylic, and α , α' -dialkoxydicarboxylic acids

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 1, 1962, 20-24

TEXT: Synthesis and properties of polymers containing Zn, Cu, Cd, Co, or Ni on the basis of ω , ω' -hexadecanedicarboxylic acid (I), terephthalic acid (II), α , α' -dihydroxysebacic acid (III), and α , α' -dimethoxysebacic acid (IV) are described. III was synthesized from α , α' -dibromosebacic acid by saponification with 5% KOH solution, production of Cu salt with CuSO_4 , and formation of the free acid by precipitating Cu with H_2S . Dimethyl ester of IV was obtained from α , α' -dibromosebacic acid by sodium methylester ($n_D^{20} = 1.4425$; boiling point = $128-130^\circ\text{C}/1-2 \text{ mm Hg}$). Dipotassium salts of I, II, III, or IV were reacted with the chlorides or acetates of the

Card 1/4

32343
S/190/62/004/001/004/020
B101/B110

Studies of coordination ...

metals in an aqueous or aqueous-alcoholic medium. Linear structure is assumed due to the thermal behavior and insolubility of the powdery precipitates obtained. The following data are listed: (A) Polymers from I, structure $\left[\begin{array}{c} \text{O} \\ | \\ -\text{C}-\text{OMeOC}(\text{CH}_2)_{16}- \\ | \\ \text{O} \end{array} \right]_n$; copper compound light blue, crystalline,

melting point 223 - 225°C (in capillary), maximum deformation ($D_{\max}$) at 201°C; Cd compound crystalline, white, melting point 211 - 213°C, $D_{\max} = 175^\circ\text{C}$; Zn compound crystalline, white, melting point 242 - 246°C, $D_{\max} = 221^\circ\text{C}$; (B) the Cu compound with II is light blue, crystalline, melting point 300°C (with decomposition), $D_{\max} = 335^\circ\text{C}$; (C) the composition of polymers of III differed with the conditions of synthesis. It is assumed that complexes with groups of adjacent chains or with molecules of the solvent are formed as a consequence of the incompletely occupied coordination sphere of the metal ion. Cd compound white, melting point 280-290°C (decomposition), $D_{\max} = 292^\circ\text{C}$; Zn compound white, melting

Card 2/4

Studies of coordination ...

S/190/62/004/^{323h3}001/004/020
B101/B110

Doc., 110, 004, 1961.

ASSOCIATED: Institut elementoorganicheskikh soedineniy AN SSSR
(Institute of Elemental Organic Compounds AS USSR)

SUBMITTED: January 18, 1961

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S/190/61/003/012/005/012
B101/B110

15.8150
AUTHORS:

Korshak, V. V., Rogozhin, S. V., Volkov, V. I.

TITLE:

Investigations in the field of coordination polymers. VIII.
Polymers on the basis of aromatic, o,o'-dihydroxydi-
carboxylic acids and bivalent metals

PERIODICAL:

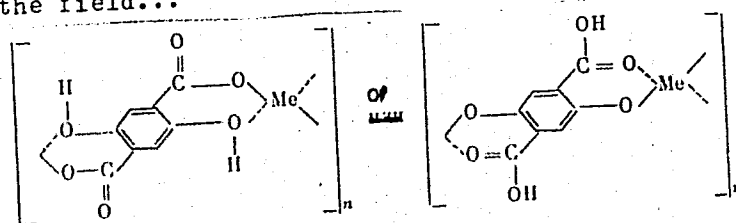
Vysokomolekulyarnyye soyedineniya, v. 3, no. 12, 1961,
1808 - 1815)

TEXT: The authors deal with the synthesis of high-molecular compounds in which metal atoms are combined with the organic part of the macromolecule by means of coordination bond. The present investigation describes the interaction of acetyl acetonates, acetates, and chlorides of Cu, Zn, Ni, Co, Cd, and Be with 2,5-dihydroxy terephthalic acid (I) and 4,4'-dihydroxy triphenyl methane-3,3'-dicarboxylic acid (II), also their dimethyl esters (III) and dimethoxy derivatives (IV). In the reaction of I with acetyl acetonates of Zn, Ni or Cu in dimethyl formamide, acetyl acetone was freed, and polymers containing metal were formed, for which the structural formulas

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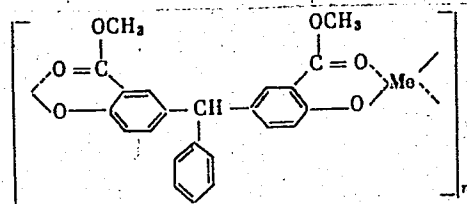
are suggested. The polymer with Zn decomposes at 359°C, the polymer with Cu at 253°C. The reaction of II with Zn or Cu compounds (acetylacetonates and acetates) in methyl formamide (some tests also in methanol or water) resulted in insoluble, nonfusible substances which decomposed above 350°C. II was obtained by condensation of salicylic acid with benzaldehyde in acid medium at 85°C. In order to study the role of carbonyl and hydroxyl oxygen, III and IV were synthesized. III was obtained by esterification of II by means of methanol in the presence of H₂SO₄, IV by treating the disodium salt of II with dimethyl sulfate. Since ⁴III and IV melted without decomposition, polymerization could also be achieved in the melt by means of these substances. Reaction of III with Co, Ni, Cu, and Zn compounds resulted in insoluble, nonfusible substances for which formula

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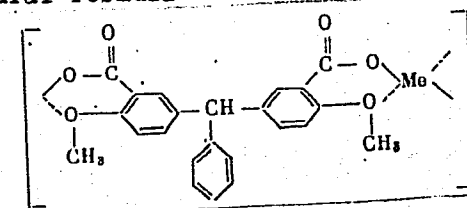
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is suggested. The composition of the Cu and Zn compounds was not according to theory. This is ascribed to by-reactions. Reaction of IV with Zn- or Be acetate in acetic acid ($>130^{\circ}\text{C}$), and of the dipotassium salt of IV with CuCl_2 , BeCl_2 , ZnCl_2 , and CdCl_2 in H_2O led to polymers which changed considerably at $250 - 450^{\circ}\text{C}$, with the stability decreasing in the order $\text{Be} > \text{Zn} > \text{Cd} > \text{Cu}$. The structural formula



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is suggested. The compounds obtained from aqueous solution deviated in their composition from the theoretical composition, probably due to water content. The considerable increase in volume of the Be and Zn compounds above 200°C is ascribed to continuation of the incomplete chemical reaction at elevated temperature. In the esters of aromatic o-hydroxy acids, carbonyl oxygen of the carboxyl group effects the formation of the coordination bond. In o-methoxy acid, the oxygen of the methoxy group has an effect. All polymers were colored powders. The polymers obtained from the melt had a composition which came nearest to theory. There are 1 figure, 6 tables, and 15 references: 9 Soviet and 6 non-Soviet. The four most recent references to English-language publications read as follows: S. Kanda, Y. Saito, Bull. Chem. Soc. Japan, 30, 192, 1957; H. Kling, L. Alexander, G. Summer, Acta crystallogr., 11, 41, 1958; R. G. Charles, M. A. Pawlikowski, J. Phys. Chem., 62, 440, 1958; J. Wilkins, E. Wittbecker, US Patent 2659711, 1953.

ASSOCIATION: Institut elementoorganicheskikh soedineniy AN SSSR
(Institute of Elemental Organic Compounds AS USSR)

SUBMITTED: January 6, 1961
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ROGOZHIN, V.

Specialization and standardization. Za rul. 18 no. 12:1 D '60.
(MIRA 14:1)

1. Nachal'nik i glavnyy konstruktor TsKEB mototsiklostroyeniya.
(Motorcycles) (Motor scooters)

SOV/137-59-4-7969

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 4, p 88 (USSR)

AUTHOR: Rogozhin, V.V.

TITLE: The Effect of Remelting Alloys on the Structure of the Casting

PERIODICAL: Sb. nauchn. tr. Nauchno-tekhn. o-va tsvetn. metallurgii, Mosk. in-t
tsvetn. met. i zolota, 1958, Nr 29, pp 143 - 144

ABSTRACT: The author investigated the effect of remelting on the structure of
✓ Al-Si alloys (5.6; 9.1; 13; 18; 22% Si). For this purpose the cooled-
off alloy was reheated up to the temperature of casting. Remelting
caused disintegration of the grains and changes the quantitative
correlation of the structural components.

N.N.

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5(3)

SOV/62-58-12-13/22

AUTHORS:

Korshak, V. V., Rogozhin, S. V., Makarova, T. A.

TITLE:

On the Characteristic Features of the Polymerization of Styrene in the Presence of Bivalent Initiators (Ob osobennostyakh polimerizatsii stirola v prisutstvi bivalentnykh initsiatorov)

PERIODICAL:

Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 12, pp 1482-1485 (USSR)

ABSTRACT:

In the present paper the authors investigated the polymerization of styrene in the presence of phthaloyl and terephthaloyl peroxide. The results obtained (Tables 1 and 2) show that the terephthaloyl and phthaloyl peroxide initiate the polymerization of styrene. As, however, these initiators are practically insoluble in styrene, the course of the reaction is considerably slower than with benzoyl peroxide. The polymerization in the presence of terephthaloyl and phthaloyl peroxide differs from the one in the presence of benzoyl peroxide by the fact that a continuous and uninterrupted increase in molecular weight of the polymers takes place all through the duration of polymerization. This characteristic feature of the polymerization in the presence of bivalent initiators can ap-

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On the Characteristic Features of the Polymerization of Styrene in the Presence of Bivalent Initiators

parently be explained as follows: The main cause of a break of the chain during the radical polymerization is the recombination. In the case of a polymerization in the presence of benzoyl the recombination leads to the formation of a macromolecule which cannot grow any further. In the case of bivalent initiators such a reaction does not lead to the break of the chain, as the recombination product as well as the initial macromolecule remain active. This molecule has free valences at either end and can grow on in either direction. For this reason the recombination does not exert any disturbing influence at all on the growth process of the chain. It is maintained during the whole duration of the polymerization, which fact leads to the formation of extremely high-molecular polymers. The formation of monovalent radicals at the expense of the end groups of polymer oxides does not have any important influence on the total picture of polymerization. There are 3 tables and 7 references, 2 of which are Soviet.

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On the Characteristic Features of the Polymerization of Styrene in the
Presence of Bivalent Initiators

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR
(Institute of Elementorganic Compounds, Academy of Sciences,
USSR)

SUBMITTED: April 2, 1957

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